

PLASTIC CONTAINER

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a continuation of copending PCT International Patent

- 5 Application PCT/EP00/03643, filed April 20, 2000, and a continuation-in-part of copending
U.S. Patent Application No. 09/525,526, filed March 15, 2000, ^{now pending,} the contents of both of
which is expressly incorporated herein by reference thereto.

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TECHNICAL FIELD OF INVENTION

- 10 The present invention relates to large-volume containers and, in particular,
large-volume containers made from a thermoplastic material.

BACKGROUND OF THE INVENTION

- Large-volume containers of the type discussed are typically in the form of a
15 cylindrical drum having a capacity (volumetric net content) of about 16 to 80 gallons.
These containers are commonly used for the storage and transportation of liquid contents or
solid, particle-shaped and pasty contents.

- A commonly employed container design is the bung-type drum with a net
capacity of about 58 gallons. When these cylindrical drums or barrels are stored or shipped
20 in ISO containers, there remains wasted space between the round wall surfaces of
neighboring drums. Also, conventional drums of this type exhibit a tendency to buckle at
their sides when multiple drums are stacked upon one another.

- Therefore, it is desirable to provide a drum that avoids wasted space between
adjacent drums, and at the same time does not tend to buckle when other drums are stacked
25 upon it. The present invention provides such a drum.

SUMMARY OF THE INVENTION

- According to the invention, this is accomplished by means of an
approximately square cross-sectional shape of the drum body with slightly convex lateral
30 surfaces and slightly radiused corners. Such a design results in a substantially improved
utilization of pallet space. Compared to conventional, round drums, the essentially square
drums according to this invention, when stacked side-by-side, leave significantly smaller
gaps between them, thus permitting enhanced utilization of previously wasted carrier space
(for instance in ISO containers). In a practical implementation of this invention, the lateral
35 walls of the drum are provided with reinforcing vertical and/or horizontal ribs which will